

CDF Operations Report

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All Experimenter's Meeting
August 21, 2006

Store Summary (Aug 14-21)

Store #	Start Date	Duration [hr]	Init. Lumi [pb ⁻¹]	Deliv. Lumi [pb ⁻¹]	Live Lumi [pb ⁻¹]	Good w/ Si [pb ⁻¹]	Comments
4904	8/13 Sun	27.2	133.9	5.41	4.81 89%	4.69 87%	Muon Discri.
4905	8/15 Tue	24.4	125.8	4.83	4.24 87%	4.17 86%	Forward HV, Muon HV, Silicon cooling
4906	8/16 Wed	26.5	123.7	4.71	4.29 91%	4.29 91%	L2 Trigger off accidentally, Tracking chamber HV
4909	8/17 Thu	27.0	147.2	5.66	5.10 90%	5.10 90%	DAQ Messaging Server, Plug Cal HV, Forward HV
4910	8/19 Sat	14.4	140.4	3.93	3.66 93%	3.66 93%	1 DAQ Run Tev Quench
4914	8/20 Sun	23.8	115.1	4.01	3.60 90%	3.59 90%	L3, Plug Cal HV, Forward HV, Si Calib w/ beam
4915	8/21 Mon	--	167.1	On-going Store			
Sum	-	143.3	-	28.55	25.70 90%	25.50 89%	

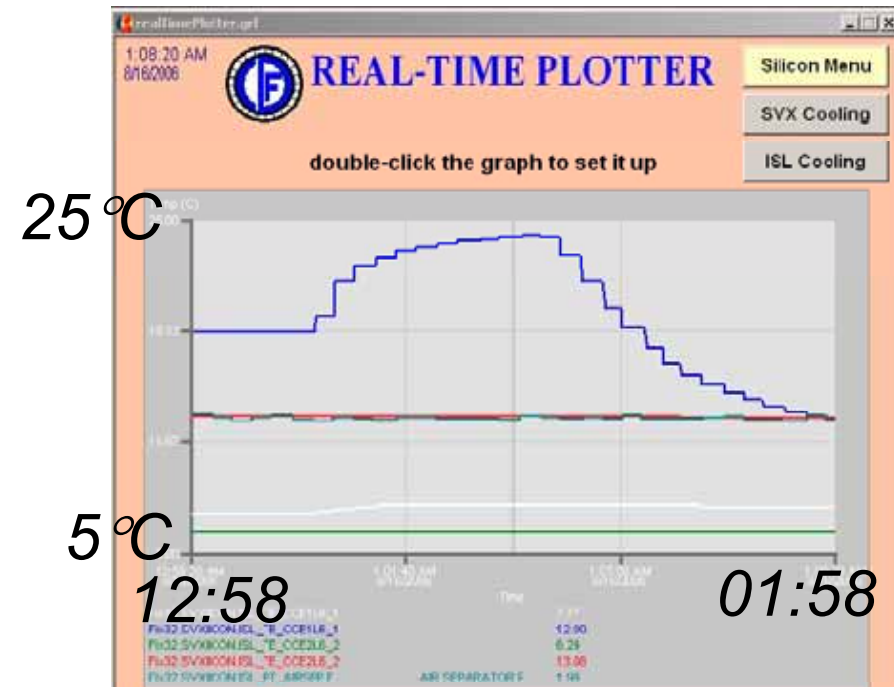
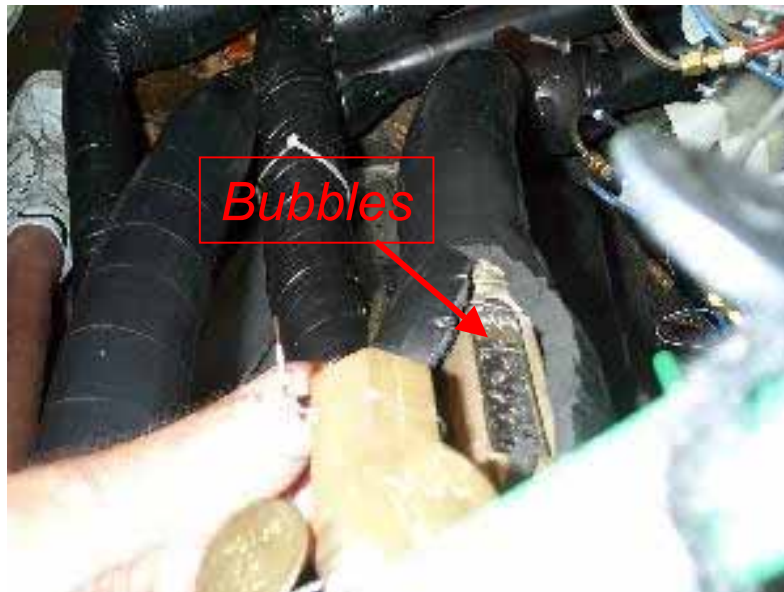
Comparison with the Past

	Deliv. Lumi [pb ⁻¹]	Live Lumi [pb ⁻¹]	Good w/ Si [pb ⁻¹]
This Week 8/13 – 8/21, 2006 Stores 4904 – 4915	28.55	25.70 90%	25.50 89%
Previous Week 8/7 – 8/13, 2006 Stores 4893 – 4904	25.3	22.6 89%	22.3 88%
After Feb 2006 Shutdown 6/9 - 8/21, 2006 Stores 4745 - 4915	201.4	169.7 84%	143.4 71%
½ yr before Feb 2006 Shutdown 10/2, 2005 – 2/22, 2006 Stores 4428 - 4666	287.0	231.9 81%	210.0 73%

- Our efficiency with good Silicon operation has been largely improved!

ISL Cooling Problem

- Observed bubbles in Silicon cooling water few weeks ago.
 - Could be the cause of compromised cooling in sections of Silicon.



- Temperature rise in part of Silicon detector on Wed Owl.
 - Possibly a big bubble went in.
- Interlock failed to trip HV for 1 wedge out of 6.
 - No damage to our detector, fortunately.
 - The part of detector in question was fed with another cooling line.
 - Fixed the jumper on power supply in wrong position during access.

Operation Activities

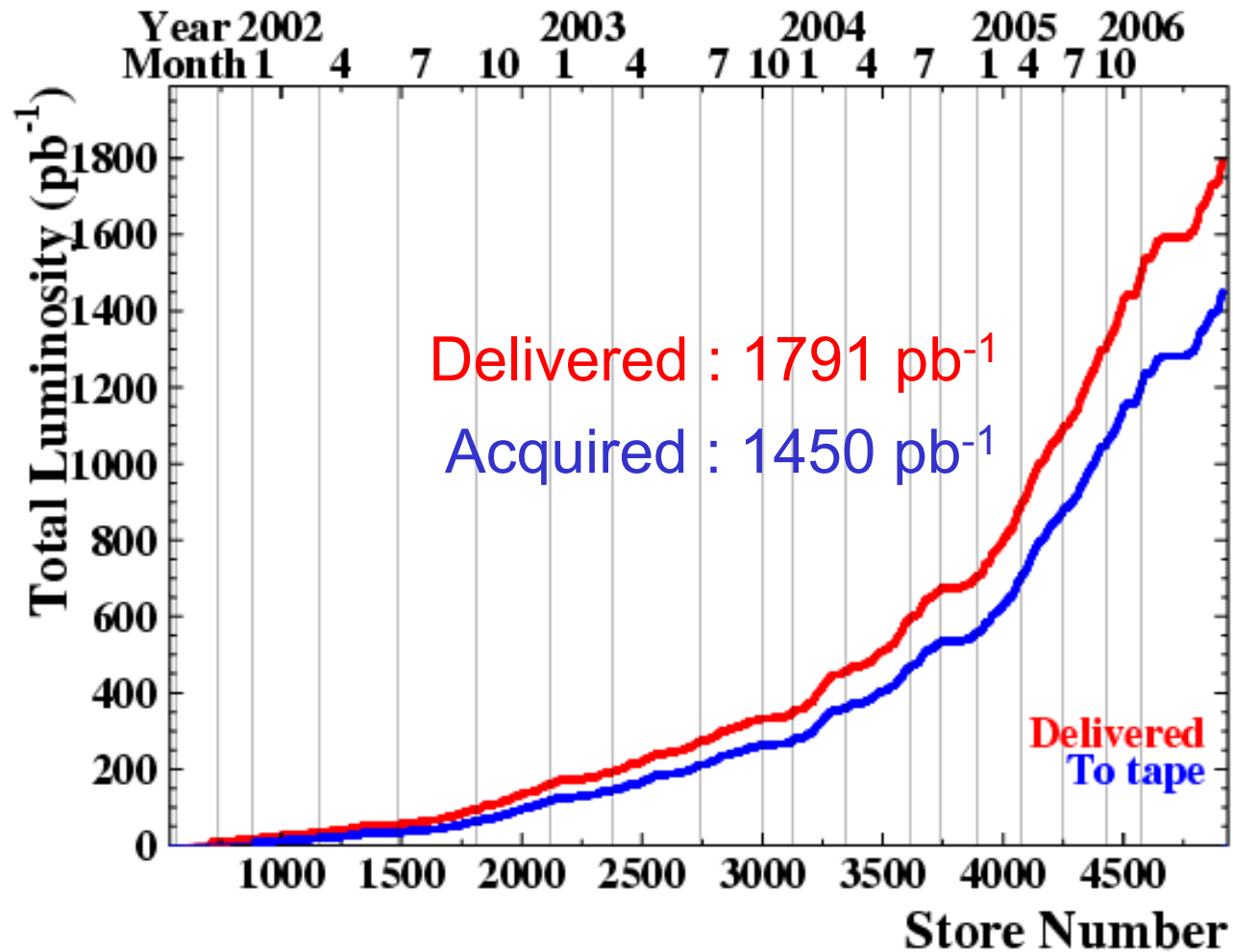
- **Controlled Accesses**

- Aug 17 (Thu)
 - ◆ Fixed Silicon cooling interlock.
 - ◆ Silicon bias cable swap fixed.
- Aug 18 (Fri)
 - ◆ Investigation of a dead segment in forward muon chamber.

- **Other Activities**

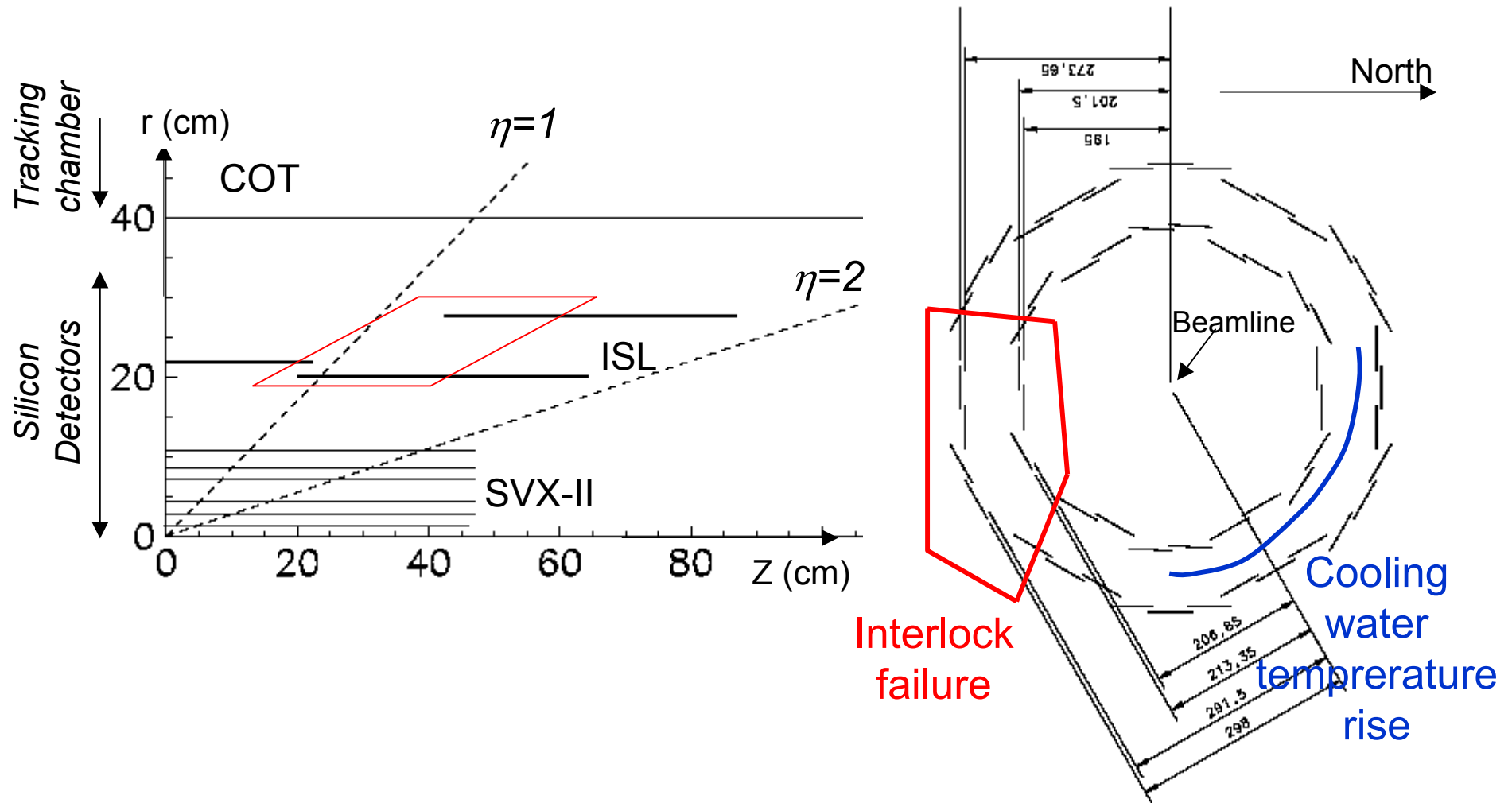
- Continuing Track Trigger upgrade efforts.
 - ◆ Download of new firmware (Stereo tracking and Stereo-Axial linker).
 - ◆ Threshold for Stereo Layers in Tracking Chamber lowered.
- Trigger Table studies for high luminosity conditions.
 - ◆ L2 Trigger rate limit has been changed up to 750 Hz (by 150 Hz).
 - ◆ Fine tuning of dynamic prescale algorithm of L2 Trigger.
 - ◆ Test of new Trigger Table.
- Maintenance of HV control for Tracking Chamber, Luminosity Monitor.
- Investigation to revive a dead Silicon ladder.
- Calibration run with beam for Silicon (regular calibration of ~1th a month).

CDF Integrated Luminosities



Backup

Silicon Cooling Interlock Failure



- The warmed cooling water fortunately did not serve the section of detector.